

Date: Fri, 24 Sep 93 04:30:13 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #57
To: Ham-Ant

Ham-Ant Digest Fri, 24 Sep 93 Volume 93 : Issue 57

Today's Topics:

Antenna for Satellite Reception.
Coils in Cellular Antennas
HF Multiband Verticals
omni-directional VHF/UHV/FM antenna
Transmission Line Losses
Wire J-pole?

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 23 Sep 93 11:58:48 GMT
From: sdd.hp.com!vixen.cso.uiuc.edu!howland.reston.ans.net!pipex!sunic!ericom!
terminus.ericsson.se!news@network.ucsd.edu
Subject: Antenna for Satellite Reception.
To: ham-ant@ucsd.edu

I have recently bought a Scanner and was wondering about receiving satellite
telemetry
data. Does anybody know of any good books detailing frequencies, type of
modulation,
protocols/data formats, reception times, hardware requirements etc.

More relevant to this group can you suggest any books for a beginner on antenna
design
for satellite reception.

Thanking you in advance

Trevor Sutton

Date: Thu, 23 Sep 1993 01:05:39 GMT
From: olivea!pagesat!indirect.com!jbromley@uunet.uu.net
Subject: Coils in Cellular Antennas
To: ham-ant@ucsd.edu

In article <27q3lg\$t5i@news.bu.edu> david@med-busphed.bu.edu writes:

>I have been seeing TV and billboard adds for cellular telephones that make
>much of the fact that there is short segment of about 5-7 helical turns in
>the middle of what is recognized as a cellular telephone antenna.

>Does this have a function? I can theorize that: 1. It adds some inductance
>to the system that's needed. 2. It adds flexibility to the antenna so it
>will bend. or 3. It's decorative.

The coil in the middle of Cell-Tel antennas provides a 180-degree phase reversal to the current flowing up from the base of the antenna. By doing this, the two straight sections have current flowing in-phase in them and thus radiate with a modicum of gain over a single, half-wavelength-long section.

There's nothing Cell-Tel specific about this style of antenna. They are also used in the 800-MHz land mobile service. But they have become identified with cellular in the public's mind, I suppose. One of the Cell-Tel vendors here in Phoenix has a gigantic model of the antenna on top of the sign in front of his store. It must be 10 feet tall at least. I just about laughed my ass off when I saw that monstrosity.

>David R. Gagnon, MD MPH

david@med-busphed.bu.edu

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Jim Bromley, W5GYJ	All opinions strictly my own.
5128 N. 69th Avenue	tel: 602-848-8711
Glendale, AZ 85303	Internet: jbromley@indirect.com

Date: 23 Sep 1993 17:42:10 GMT
From: sdd.hp.com!hpscit.sc.hp.com!icon.rose.hp.com!hpchase.rose.hp.com!

cmoore@network.ucsd.edu
Subject: HF Multiband Verticals
To: ham-ant@ucsd.edu

Mike Ellerson (mellerso@uga.cc.uga.edu) wrote:

: Has anyone had any experience with the lower cost multi-band low cost
: verticals. I am interested in antennas that cover 10M - 40M. I would like
: to hear about your experiences with any of the following antennas and how
: you wound up mounting them :

I have the Hustler 4BTV (10, 15, 20 and 40 only). I have it mounted on top of a 10 foot mast on top of the roof, right in the center. I use 4 guy wires, one to each corner of the roof. These guys are the 40 M radials...at the appropriate distance from the antenna there is an insulator making them electrically 1/4 wavelength long. Under the guy wires I have the radials for the other bands, four for each.

I don't have any other verticals to compare it to, but it has worked well for me for many years and until recently it was my only HF antenna.

Chris Moore
N6IYS
cmoore@mothra.rose.hp.com

Date: Wed, 22 Sep 1993 14:57:20 GMT
From: psinntp!cmhcsys.com!chuck@uunet.uu.net
Subject: omni-directional VHF/UHF/FM antenna
To: ham-ant@ucsd.edu

Ok, I _know_ this is not a HAM question, but you folks have got to be the ones w/ the most knowlege about antennas in general. I'm looking for a solution to our current VHF/UHF/FM situation. We live in North-Central Ohio (near Mansfeild, OH) on a relatively high altitude (for Ohio) plateau, w/ few trees or obstructions for 3-4 miles. On rare occsions we can receive VHF/UHF signals from Toledo, Akron/Canton, Dayton, Newark (Ohio), and Cleveland. As well as the Columbus stations that are generally available. All of this is w/ a set of "rabbit-ears" sitting on top of the TV. I would like to find an omni-direction antenna that would allow us to receives all of these signals on a regular basis. I'm planning on putting up a tower 30-40'. Is this realistic? I've seen saucer-shaped antenna on RV's and in RS's catalog, would these work? I think I'm going to need ~100 mile range, but haven't gotten out the road map to be sure. I'm willing to build something (I assembled a Heath Kit HW-16 _years_ ago, worked as an electronic Tech for 4-5 years so I think I'm technically qualified). The reason I don't want a "standard" antenna and rotor is that we have two sets and it's common for one of us to be watching a

Columbus station while the other is watching a Cleveland (or Akron...) station.

Obligitory HAM comment: I'm currently studying for my Tech (or Tech+) licence. Once I get it, I'll probably want to mount a Packet antenna or two on the same tower. If that's advisable.

Thanks in advance.

(If this is a waste of bandwidth, I'm sorry. Please e-mail flames and responses to me. I'll summarize the responses (and ignore the flames) if people think it's relevant.)

Chuck
chuck@cmhcsys.com

Date: 23 Sep 93 12:20:22 EDT
From: world!ksr!jfw@uunet.uu.net
Subject: Transmission Line Losses
To: ham-ant@ucsd.edu

jeffj@cbnewsm.cb.att.com (jeffrey.n.jones) writes:
>There was a article in one of the Amateur radio magazines in the last
>year that refutes this. I wish I had it in front of me but it basically
>said that high SWR on a coax or ladder line will not cause the line
>losses to go up. You will have some loss but only on the order of about
>2% of your total power not 3 to 4 times the loss. Any one else read this
>or have more information on this? 73!

Well, this would certainly have been an April issue, so I guess that limits the number of magazines one must search.

Date: Thu, 23 Sep 1993 14:59:19 GMT
From: sdd.hp.com!elroy.jpl.nasa.gov!usc!math.ohio-state.edu!uwm.edu!
vixen.cso.uiuc.edu!moe.ksu.ksu.edu!hobbes.physics.uiowa.edu!news.uiowa.edu!
icaen.uiowa.edu!drenze@network.ucsd.edu
Subject: Wire J-pole?
To: ham-ant@ucsd.edu

Can somebody point me to where I can dig up info on building a wire J-pole antenna for use with my 2-m HT? I need just about *anything* for gain over my ducky when I'm using it as a base station...and when I'm at my computer with my ducky, I get a nice RFI tone over the local repeater. :-(

Tnx es 73 de Doug N0Z??

05W 03D 20H 59M and counting (and no, I'm not transmitting...I'm talking about reception at the moment. :-))...

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__ /| | Douglas J Renze | Charter Member, Popular Front
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  U | Douglas-Renze@uiowa.edu | Evolution Now!
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End of Ham-Ant Digest V93 #57
